

METHOD OF USE OF MONOMERIC INSULIN AS A MEANS
FOR IMPROVING THE REPRODUCIBILITY OF INHALED INSULIN

ABSTRACT OF THE DISCLOSURE

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10 The need for the delivery of insulin by injection can be reduced or eliminated
by delivering an aerosolized monomeric insulin formulation. Repeatability of dosing and
more particularly the repeatability of the blood concentration *versus* time profile is
improved relative to regular insulin. The blood concentration *versus* time profile is
substantially unaffected by specific aspects of the patient's breathing maneuver at delivery.
Further, the rate at which blood glucose is lowered is increased by the use of monomeric
insulin. Particles of insulin and in particular monomeric insulin delivered to the surface of
lung tissue will be absorbed into the circulatory system. The monomeric insulin may be a
dry powder but is preferably in a liquid formulation delivered to the patient from a hand-
15 held, self-contained device which automatically releases an aerosolized burst of
formulation. The device includes a sensor which is preferably electronic which measures
inspiratory flow and volume which measurement can be used to control the point of drug
release.

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